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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	J1-9-03755-B-US
First Inventor	Goldston
Title	Automatic, Profile-Free Web Page Re
Express Mail Label No.	EL672931489US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 32]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
5. Oath or Declaration [Total Pages 2]
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 17 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☒ 37 CFR 3.73(b) Statement (when there is an assignee) ☒ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Other:

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. _____/_____

Prior application information

Examiner _____


Group / Art Unit _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

18. CORRESPONDENCE ADDRESS☐ Customer Number or Bar Code Labelor ☒ Correspondence address below

(Insert Customer No. or Attach bar code label here)

Name	Steven C. Sereboff				
Address	2555 Townsgate Rd				
City	Westlake Village	State	CA	Zip Code	91361
Country	USA	Telephone	(805) 418-2185	Fax	(805) 418-2185

Name (Print/Type)	Steven C. Sereboff	Registration No. (Attorney/Agent)	37,035
Signature		Date	11-20-2000

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FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT

(\$) 598

Complete if Known

Application Number	
Filing Date	20-Nov-2000
First Named Inventor	Goldston
Examiner Name	
Group Art Unit	
Attorney Docket No.	J1-9-03755-B-US

METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number **501524**
 Deposit Account Name **NetZero, Inc.**

- ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

- ☒ Applicant claims small entity status. See 37 CFR 1.27

2. ☐ Payment Enclosed:

☐ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 710	201 355	Utility filing fee	355
106 320	206 160	Design filing fee	
107 490	207 245	Plant filing fee	
108 710	208 355	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$) 355

2. EXTRA CLAIM FEES

Total Claims **37** - 20 = **17** × **9** = **153**
 Independent Claims **4** - 3 = **1** × **40** = **40**
 Multiple Dependent **0** = **0**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 80	202 40	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 80	209 40	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 203

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for <i>ex parte</i> reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 390	216 195	Extension for reply within second month	
117 890	217 445	Extension for reply within third month	
118 1,390	218 695	Extension for reply within fourth month	
128 1,890	228 945	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,240	241 620	Petition to revive - unintentional	
142 1,240	242 620	Utility issue fee (or reissue)	
143 440	243 220	Design issue fee	
144 600	244 300	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	40
146 710	246 355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710	249 355	For each additional invention to be examined (37 CFR § 1.129(b))	
179 710	279 355	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

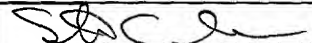
Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 40

SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Steven C. Sereboff	Registration No. (Attorney/Agent)	37,035	Telephone	(805) 418-2185
Signature		Date	11-20-2000		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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Country of Residence:: USA
Citizenship Country:: USA

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Electronic Mail One:: ssereboff@corp.netzero.net

APPLICATION INFORMATION

Title Line One:: Automatic, Profile-Free Web Page Recomme
Title Line Two:: ndation
Total Drawing Sheets:: 4
Formal Drawings?: Yes
Application Type:: Utility
Docket Number:: J1-9-03755-B
Secrecy Order in Parent Appl.?: No

REPRESENTATIVE INFORMATION

Registration Number One:: 37035

CONTINUITY INFORMATION

This application is a:: CONTINUATION IN PART OF
> Application One:: 60/226,341
Filing Date:: 08-18-2000

Source:: PrintEFS Version 1.0.1

60/226,341

Automatic, Profile-Free Web Page Recommendation

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RELATED APPLICATION INFORMATION

[0002] This application is related to and claims priority from US Application No. 60/226,341, filed August 18, 2000, entitled "Automated Internet Touring System Tailored To User-Specific Qualities," which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

Field Of The Invention

[0003] The present invention relates to providing content of interest to a user. The present invention further relates to recommending web pages to a user of the World Wide Web based upon the currently viewed web page.

Description Of Related Art

[0004] The World Wide Web is a collection of millions of linked web sites, electronic documents and files that are stored on computers throughout the world. The World Wide Web includes Web sites that literally relate to millions of different subjects, which may or may not be of interest to a person who is surfing the web.

[0005] A user typically employs a browser to access Web sites that are of interest to the user. The user can learn of Web sites of interest by either learning of the site through friends or through the media. Another way to learn of Web sites is to use a search engine to search the Web. The user typically types key words into a search engine Web page. The search engine then returns a list of one or more Web sites that relate to the keywords. This can be confusing for novice users who are unfamiliar with computers and the Web. Moreover, the use of search engines can also be frustrating for experienced users as the search engines may sometimes turn up sites that are unrelated to the keywords. Even worse, the search engines may sometimes inadvertently turn up sites that are of an objectionable nature to a particular user.

[0006] It would be desirable for a program or an online service to automatically assist a user with browsing to Web sites that are particularly tailored to the user's interests. This would allow novice user to quickly become accustomed to using the Web in a relatively easy manner. Such a program or service would also provide experienced users with a more fulfilling online experience.

[0007] Several attempts have been made at providing users with automated browsing assistance. In a system called "Ringo" developed at the MIT Media-Lab in the mid-1990s, personalized recommendations were made to a user based upon similarities between the interest profile of that user and the interest profiles of other users. Ringo was designed for making recommendations of music albums and artists, though it applied to Web browsing. In Ringo, the user profiles were developed by having the user rate content.

[0008] Other browsing aids, such as the eTour service of eTour, Inc., also depended on the development of user profiles. The quality of profile-based services depends on the extent and accuracy of each user's profile. Thus, in some services, a considerable number of users, providing considerable amount of ratings, are required before they become useful.

Furthermore, profile-based services cannot easily account for changing tastes of the users. Finally, profile-based services face a considerable obstacle in that, before a user can see the benefits of the service, the user must register and provide a profile. Many users prefer to browse anonymously, and studies have shown that users have relatively short attention spans.

[0009] Prior art content location aids are typically server-based. For example, the eTour service requires the user to register with their server, and the user must visit the eTour site each time a user wishes to activate the service during a session. Other server-based aids have been provided in web sites which allow users to make purchases from an on-line catalog. For example, in some web sites, when a user identifies a particular item in the catalog of interest, then the server, when dynamically creating a web for the user, may identify other products in the catalogue which may be of interest to the user. Such server-based aids are limited, in that they only work with a single on-line catalogue, and require that the user remain in contact with the server. These server-based aids can be slow, both because of the demands placed upon the server, and the need to make repeated data transfers over the telecommunications infrastructure.

SUMMARY OF THE INVENTION

[0010] In accordance with the present invention, an electronic content recommendation service is provided which can act as an aid to a user in obtaining electronic content. The service is provided using software, apparatus and methods in accordance with the invention. The service may be operated without user profiles or user registration. However, the service nonetheless can provide highly useful recommendation for electronic content to browse.

[0011] In accordance with the invention, a user's browsing of electronic content is monitored. For each unit of electronic content output by the user's browser, one or more units of electronic content (e.g., web pages) are recommended to the user. The user may then load a recommended unit of electronic content.

[0012] Recommendation is based upon a system of categorization. A number of units of electronic content are identified as fitting into predefined categories of human interest. During a user's browsing, the unit of electronic content loaded in the user's browser is determined to be in at least one of the predefined categories. Recommendations of electronic content to browse are drawn from lists of units of electronic content which were previously placed into the category of the current unit of electronic content.

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DESCRIPTION OF THE DRAWINGS

[0013] Further objects of this invention, together with additional features contributing thereto and advantages accruing therefrom, will be apparent from the following description of an embodiment of the present invention which is shown in the accompanying drawings with like reference numerals indicating corresponding parts throughout and which is to be read in conjunction with the following drawings, wherein:

[0014] Figure 1 is a first block diagram of a network data distribution system in accordance with the invention.

[0015] Figure 2 is a second block diagram of the network data distribution system in accordance with the present invention.

[0016] Figure 3 is a representation of a display of a local device having a client window and a browser window in accordance with the invention.

[0017] Figure 4 is a flow chart of a method of recommending web pages to a user in accordance with the invention.

[0018] These and additional embodiments of the invention may now be better understood by turning to the following detailed description wherein an illustrated embodiment is described.

DETAILED DESCRIPTION OF THE INVENTION

[0019] Throughout this description, the embodiments and examples shown should be considered as exemplars, rather than limitations on the apparatus and methods of the present invention.

The System and Apparatus of the Invention

[0020] With reference to Figure 1, there is shown a block diagram of a network data distribution system compatible with the invention. Figure 1 includes a local device 100, a data access network 120, a recommendation server 130 and a web server 150.

[0021] The local device 100 may be a client computer that is configured to access the web server 150 and the recommendation server 130 via the data access network 120. The client computer may be, for example, a PC running a Microsoft Windows operating system. The local device 100 includes an output device, such as display 101, and an input device, such as keyboard 102 and / or pointing device 103 (e.g., mouse, track ball, light pen, or data glove). The local device 100 may also be, for example, an Internet appliance, network computer (NC), or a data-enabled device such as a portable digital assistant (PDA), mobile phone, refrigerator, automobile, etc. The particular type of device of the local device 100 is not considered to be important so long as the local device 100 can provide some measure of individual user interactivity with a source of electronic content via a data access network in a client/server fashion.

[0022] The data access network 120 provides lower layer network support for the local device 100 to interact with servers in the network data distribution system, including the recommendation server 130 and the web server 150. The data access network 120 may comprise a common or private bi-directional telecommunications network, a public switched telephone network (PSTN), a cable-based telecommunication network, a LAN, a WAN, a wireless network, any of which are coupled with or overlaid by a TCP/IP network (e.g., the Internet or an intranet).

[0023] The web server 150 may be of the type known in the art and has the ability to serve web pages to the local device 100, as requested in the manner known in the art. It should be appreciated that the web server 150 is representative of any source of web pages and electronic content available to the local device 100. Thus, for example, the web server 150 could be accessible from the Internet, or it could be a part of an intranet, and represents any number of servers.

[0024] The recommendation server 130 is a computer system, such as a server computer. The recommendation server 130 may be considered to represent a number of physical devices which as a group provide the indicated network services. For example, the recommendation server 130 could include a web server plus a database server. The recommendation server 130 transmits certain data to the local device 100 as described further below. The recommendation server 130 may also act as a recipient of certain information transmitted by the local device 100, as described further below.

[0027] The client 110 is software operative on the local device 100. The client 110 may be an independent application program, a DLL or other logical grouping of routines. The client 110 need not be stored on the local device 100. The client 110 may be integrated with the browser 160, an operating system, or other software.

[0028] The recommendation database 180 and the page categorization database 140 store and provide data regarding categories, web pages and recommendations. The page categorization database 140 supports category look-up for electronic content. The

recommendation database 180 supports category-based recommendations. Although described herein as separate entities, the recommendation database 180 and the page categorization database 140 may be combined into a single database with appropriate fields and controls, and may be otherwise distributed.

[0029] A copy or subset of the recommendation database 180 and the page categorization database 140, referred to as local cache 170, may also be stored in the local device 100 to speed the operation of the client 110. The client 110 and recommendation server 130 may cooperate to update the local cache 170, and to have the recommendation database 180 and the page categorization database 140 accessed when the local cache 170 is inadequate or unavailable. The decision on what, if anything, to place into the local cache 170 depends on such factors as the capabilities of the client 110, the recommendation server 130, the databases 140, 180, and the data access network 120. Decisions on what and how much to store in the local cache 170 may be influenced by factors such as popularity of an object to a particular user and popularity to all or a group of users.

[0030] One aspect of the present invention is the use of “categories.” A category has two components. First, there is a label associated with the category which in most embodiments is descriptive of the category. Second, there is a scope for the category. The category scopes may be precisely defined, or may be loosely defined. The scopes may be defined through automated and/or manual techniques. Scopes may be defined using principles of linguistics and cognitive science. The particular labels and scopes, and the method of creating the labels

and scopes, is not critical to the invention. Furthermore, the labels and scopes to be used are generally dependant on the embodiment of the invention.

[0031] In general, the categories should be logically distinct, though some overlap may be inevitable. The categories should be of human interest, which is itself difficult to precisely define. Just as there are numerous techniques for selecting categories, so too there are numerous techniques for categorizing units of electronic content such as web pages, and for selecting which unit of electronic content to recommend for a given category. In the embodiment currently contemplated, formulation of the page categorization database 140 and the recommendation database 180 involves human input. In the embodiment currently contemplated, the page categorization database 140 comprises domain names and URLs which are selected based upon popularity. Objects (e.g., domain names and URLs which resolve to web pages) in the page categorization database 140 are categorized by parsing the HTML of the corresponding web page, distilling the text of the pages, and deriving a sense of the text of each page. The senses may be made using principles of linguistics and cognitive science. The senses are used to select one or more categories into which the web page fits. The list may include ratings of relevance of a given web page to its categories.

[0032] Referring now to Figure 3, there is shown the display 101 having a client window 350 and a browser window 300. The client window 200 is generated and controlled by the client 110. The browser window 300 is generated and controlled by the browser 160. The browser window 300 is familiar to those skilled in the art, so the particulars are not described

further herein. Further information regarding the use of most browsers and their technical specifications is abundantly available.

[0033] The browser window 300 includes a display pane 310, an address bar 320 and a title bar 330. The display pane 310 is a region of the browser window 300 wherein the browser 160 causes web pages received by the browser 160 to be displayed. The address bar 320 is another region of the browser window 300. The browser 160 displays URLs in the address bar 320 corresponding to the web page currently displayed in the display pane 310. The user can also enter a URL into the address bar 320, and the browser 160 will attempt to load the web page or other object to which the entered URL points. The address bar 320 may be hidden. However, there is an object associated with the address bar which, in common practice, stores the URL for the currently displayed web page. The primary feature of the title bar 330 is that it displays the title of the browser 160. Another feature of most browsers is that the title bar 330 displays the title of the web page then displayed in the display pane 310.

[0034] The client window 350 includes a title bar 351 and a number of operational icons 352, 353 on the title bar 351. The title bar 351 may be used for identifying the client 110. The client window 350 as shown includes a recommendation pane 360. The recommendation pane 360 includes a prompt 361, a category display area 362 and an activation button 363. The client window 350 and the recommendation pane 360 are shown having a conventional rectangular shape. However, the client window 350 and the recommendation pane 360 may define any of a wide variety of regular or irregular shapes.

[0035] The client window 350 is displayed on top of the browser window 300. The client window 350 may be configured to attach to an edge of the browser window 300, and always remain visible and on top of the browser window 300 (persistent). The location of the client window 350 may be predefined, selectable by the user, or selected by a server remotely. In one embodiment, the client window 350 is attached to the title bar 330 of the browser window 300. In other embodiments, the client window 350, or parts of the client window 350, may be integrated into the browser window 300. For example, the title bar 351 of the client window 350 may be eliminated, and the contents of the recommendation pane 360 fixed in the browser window 300.

[0036] The operational icons 352, 353 on the title bar 351 include a close icon 352 and a help icon 353. Activation of the close icon 352 causes client 110 to close the recommendation pane 360, although the title bar 351 of the client window 350 remains displayed. The help icon 353 may be used for providing help to the user. The category display area 362 is used for displaying the label associated with the category of the web page being displayed in the browser display pane 310. The prompt 361 is static text which, when combined with the display in the category display area 362, conveys a message to the user of the availability of a recommendation. The activation button 363 is used by the user to accept the recommendation.

[0037] Variations of the client window 350, and corresponding functionality of the client 110 are within the scope of the invention. The category display area 362 may be a drop down list. In such an embodiment, the drop down list could include all of the categories in which

the current web page falls, and could list sub-categories. The client window 350 may provide a selectable display of the URLs, page names, or site names of the recommended web pages.

The Methods of the Invention

[0038] Referring now to Figure 4, there is shown a flow chart of a method of recommending electronic content to a user in accordance with the invention. As will be seen, in contrast with prior art systems, this method may be practiced without any particular information about the user, such as a user profile. Because the method is automatic from a user perspective, a user need not register or provide information before gaining its benefits.

[0039] After the method begins (step 405), the client 110 activates on the local device 100. The client 110 may activate automatically, for example when the browser 160 activates (step 410). The process by which the client 110 is installed on the local device 100 is not significant. The client 110 may be provided to users for free or for a fee. The recommendation service of the invention may be provided for free or for a fee. Fees may be assessed through well known payment systems, including through artificial media of exchange such as RocketCash.

[0040] Once activated, the client 110 can monitor the browser 160 (step 415). One reason that the client 110 monitors the browser is to know when the user has browsed to a new web page. By monitoring the browser's address bar object, when the browser 160 requests a web page, the client 110 can recognize that the address bar object has changed.

[illegible][illegible][illegible][illegible]

[0044] Although the category determination can be made by initially copying the URL from the address bar object, other techniques can be used to determine the category of the current web page. For example, techniques such as screen-scraping, data-stream sniffing, and copying other objects used by the browser are available to obtain information about the current web page. This information may be used as described above for categorization.

[0045] Once the category of the current web page is known, the client 110 can select a web page to recommend (step 425). There may be only one web page recommended, or a number of web pages may be selected to recommend. The recommendation is automatic (i.e., active), and does not require the user to do anything to obtain the recommendations. Furthermore, recommendations may be made without reference to user profiles of any kind.

[0046] To make a recommendation, the client 110 consults the recommendation data in the local cache 170, in the recommendation database 180, or may cooperate with the recommendation server 130 to access the recommendation database 180. In the embodiment currently contemplated, web pages to recommend for each category are selected in advance. This includes some measure of human involvement to refine the recommendations. When needed by the client 110, recommendations may be made in a way that minimizes the chance that a recommendation is made twice. Recommendations may also be made on a preferential basis, and may be made on exchange of consideration (e.g., paid placement). Recommendations can also be made on numerous other factors, including popularity, fit in a category, and relationships.

[0047] Furthermore, recommendations can be made by synthesizing characteristics from a user's historical web browsing. Since the client 110 monitors web browsing, a history of web pages browsed may be maintained and utilized to enhance the recommendations. For example, it may be desirable to not recommend pages which the user has already browsed, which the user has browsed them within a certain period of time, or which are similar to pages the user has browsed or recently browsed.

[0048] It is believed that, for the client 110 to be effective, its use should instill trust in the user. This theory is drawn from the experience of prior art search engines. Thus, although short-term revenues may be enhanced by accepting paid placements which are not particularly relevant to a category, this may ultimately reduce usage of the client 110 because of reduced user trust.

[0049] After the client 110 has obtained one or more recommendations for the current web page (step 425), the client 110 generates a message on the output device 101 which informs the user of the availability of a recommendation (step 430). This may be achieved by displaying the category of the current web page in the category display area 362 (Figure3), and displaying the activation icon 363. The display of the category in the category display area 362 may occur after the category of the current web page has been determined in step 420, or after the recommendation(s) are available in step 425.

[0050] The user then may provide input to the client 110 indicative of the user's desire to activate the recommendation (step 440). If there is more than one recommendation, the

activation icon 363 may be used to select the first recommended web page. The user may be provided with the opportunity to select from a list of recommended web pages, for example with a drop down list. If the user chooses not to accept the recommendation, then browsing continues (step 445), and the client 110 continues to monitor the browser (step 415).

[0051] As an alternative to step 440 following step 425, they may be reversed. That is, the user may provide input to the client 110 indicative of the user's desire to activate a recommendation, and then the recommendation may be obtained.

[0052] If the user accepts a recommendation, then the client 110 causes the browser 160 to request the recommended web page (step 450). If the user could select from more than one recommendation, then the client 110 causes the browser 160 to request the recommended web page which the user selected. The web browser then requests and loads the recommended web page. The recommended web page may be displayed in the same browser window 300 as the current web page, or may be displayed in a new or other window.

[0053] After the user has selected a first recommended web page (step 440), the user may continue to accept recommendations from the same category (step 455). This step 455 may be performed in a number of ways. As mentioned, in step 425 several web pages may be selected for recommendation. In such a case, the client 110 maintains a list of recommendations and the user may select a next recommendation by activating the activation icon 363. The activation icon 363 may change appearance to reflect that more recommendations are available. As an alternative to selecting multiple web pages to

[illegible][illegible][illegible][illegible]

CLAIMS

It is claimed:

1. A method of recommending web pages to a user, the user using a web browser on a local device to browse web pages, the local device comprising an input device and an output device, the web browser for requesting web pages and for outputting web pages to the output device, the method comprising the steps of:

providing plural categories of human interest, the categories having associated therewith respective scopes

activating a client on the local device

the web browser requesting a first web page

after the web browser requests the first web page, the client automatically obtaining a first one of the plural categories of human interest in which the first web page belongs

after the first one of the plural categories of human interest is obtained, the client automatically obtaining a first recommendation of a second web page which is in the first one of the plural categories of human interest

the client outputting a message to the output device which informs the user of the availability of the first recommendation

the user providing input to the client indicative of the user's desire to activate the first

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recommendation, and in response the client causing the web browser to request the second web page

the web browser requesting the second web page

the web browser outputting the second web page to the output device.

2. The method of recommending web pages to a user of claim 1 wherein the step of the client obtaining the first recommendation is performed after the step of the user providing input.

3. The method of recommending web pages to a user of claim 1 wherein the client is an independent program.

4. The method of recommending web pages to a user of claim 1 wherein the step of automatic obtaining first one of the plural categories of human interest in which the first web page belongs is performed by the steps of:

providing a page categorization database comprising identifiers of web pages correlated to the plural categories of human interest

looking up the first web page in the page categorization database to thereby a first one of the categories of human interest corresponding to the first web page.

5. The method of recommending web pages to a user of claim 4 further comprising the steps of:

the web browser storing a first resource locator corresponding to the first web page into an address bar object

the client copying the first resource locator from the address bar object and using the first resource locator for looking up the first web page in the correlation table.

6. The method of recommending web pages to a user of claim 5 wherein the first resource locator comprises a uniform resource locator.

7. The method of recommending web pages to a user of claim 1 further comprising the step of providing the user with the option to access a next recommended web page.

8. The method of recommending web pages to a user of claim 1 wherein the output device comprises a display, and the web browser outputs web pages on the display.

9. The method of recommending web pages to a user of claim 1 further comprising the steps of:

the client automatically obtaining a second recommendation of a third web page which is in the first one of the plural categories of human interest

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after the step of the web browser outputting the second web page to the output device, the user providing input to the client indicative of the user's desire to activate the second recommendation, and in response the client causing the web browser to request the third web page

the web browser outputting the third web page to the output device.

10. The method of recommending web pages to a user of claim 1 wherein the recommendation is provided to the user for free.

11. The method of recommending web pages to a user of claim 1 further comprising, after the step of the user providing input, assessing a charge against an account for making the first recommendation.

12. A computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest, the categories having associated therewith respective scopes, the user using a browser on the computer to browse web pages, the computer comprising an input device and an output device, the browser for requesting web pages and for outputting web pages to the output device, the software comprising a set of instructions for causing the computer to:

monitor the browser and determine that the browser has requested a first web page

automatically obtain a first one of the plural categories of human interest in which the

first web page belongs

automatically obtain a first recommendation of a second web page which is in the first one of the plural categories of human interest

output a message to the output device which informs the user of the availability of the first recommendation

accepting a first user input which shows the user's desire to activate the first recommendation,

cause the browser to request the second web page.

13. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 12 wherein the first recommendation is obtained after the user input is accepted.

14. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 12 further comprising instructions for causing the computer to determine the first one of the plural categories of human interest in which the first web page belongs.

15. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 12 wherein the instructions

for causing the computer to automatically obtain a first one of the plural categories of human interest in which the first web page belongs include instructions for causing the computer to look up the first web page in a page categorization database comprising identifiers of web pages correlated to the plural categories of human interest to thereby determine the first one of the categories of human interest corresponding to the first web page.

16. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 15 further comprising instructions for causing the computer to copy a first resource locator from an address bar object of the browser and use the first resource locator for looking up the first web page in the page categorization database.

17. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 12 further comprising instructions for causing the computer to provide the user with the option to access a next recommended web page.

18. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 12 further comprising instructions for causing the computer to:

automatically obtain a second recommendation of a third web page which is in the first one of the plural categories of human interest

accept a second user input which shows the user's desire to activate the second recommendation

cause the browser to request the third web page.

19. The computer-readable software program product for recommending web pages to a user in conjunction with plural categories of human interest of claim 12 further comprising instructions for causing the computer to assess a charge against an account for making the first recommendation.

20. A local device for browsing units of electronic content in conjunction with plural categories, the local device comprising:

an input device

an output device

a browser for requesting units of electronic content and for outputting the units of electronic content to the output device

a client for recommending units of electronic content to a user of the local device, the client including instructions to

monitor the browser and determine that the browser has requested a first unit of electronic content

automatically obtain a first one of the plural categories in which the first unit of electronic content belongs

automatically obtain a first recommendation of a second unit of electronic content which is in the first one of the plural categories

output a message to the output device which informs the user of the availability of the first recommendation

accept a first user input which shows the user's desire to activate the first recommendation,

cause the browser to request the second unit of electronic content.

21. The local device for browsing units of electronic content in conjunction with plural categories of claim 20 wherein the first recommendation is obtained after the user input is accepted.

22. The local device for browsing units of electronic content in conjunction with plural categories of claim 20, the client further comprising instructions to determine the first one of the plural categories in which the first unit of electronic content belongs.

23. The local device for browsing units of electronic content in conjunction with plural categories of claim 20 wherein the instructions to automatically obtain a first one of the plural

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categories in which the first web page belongs include instructions to look up the first unit of electronic content in a categorization database comprising identifiers of web pages correlated to the plural categories to thereby determine the first one of the categories corresponding to the first unit of electronic content.

24. The local device for browsing units of electronic content in conjunction with plural categories of claim 20, the client further comprising instructions to copy a first resource locator from an address bar object of the browser and use the first resource locator to look up the first unit of electronic content in the categorization database.

25. The local device for browsing units of electronic content in conjunction with plural categories of claim 20, the client further comprising instructions to provide the user with the option to access a next recommended web page.

26. The local device for browsing units of electronic content in conjunction with plural categories of claim 20, the client further comprising instructions to:

automatically obtain a second recommendation of a third unit of electronic content which is in the first one of the plural categories

accept a second user input which shows the user's desire to activate the second recommendation,

cause the browser to request the third unit of electronic content.

27. The local device for browsing units of electronic content in conjunction with plural categories of claim 20 further comprising instructions for causing the computer to assess a charge against an account for making the first recommendation.

28. A method of recommending electronic content to a user, the user using a browser on a local device to browse content, the local device comprising an input device and an output device, the browser for requesting content and for outputting the requested content to the output device, the method comprising the steps of:

providing plural categories

activating a client on the local device

the browser requesting a first unit of electronic content

after the browser requests the first unit of electronic content, the client automatically obtaining a first one of the plural categories of human interest in which the first unit of electronic content belongs

after the first one of the plural categories is obtained, the client automatically obtaining a first recommendation of a second unit of electronic content which is in the first one of the plural categories

the client generating a message on the output device which informs the user of the availability of the first recommendation

the user providing input to the client indicative of the user's desire to activate the first recommendation

the browser outputting the second unit of electronic content to the output device.

29. The method of recommending electronic content to a user of claim 28 wherein the step of the client obtaining the first recommendation is performed after the step of the user providing input.

30. The method of recommending electronic content to a user of claim 28 wherein the client determines the first one of the plural categories in which the first unit of electronic content belongs.

31. The method of recommending electronic content to a user of claim 28 wherein the client is an independent program.

32. The method of recommending electronic content to a user of claim 28 wherein the step of automatic obtaining first one of the plural categories in which the first unit of electronic content belongs is performed by the steps of:

providing a categorization database comprising identifiers of unit of electronic content correlated to the plural categories

looking up the first unit of electronic content in the categorization database to thereby a first one of the categories corresponding to the first unit of electronic content.

33. The method of recommending electronic content to a user of claim 28 further comprising the step of providing the user with the option to access a next recommended unit of electronic content.

34. The method of recommending electronic content to a user of claim 28 wherein the output device comprises a display, and the web browser outputs unit of electronic content on the display.

35. The method of recommending electronic content to a user of claim 28 further comprising the steps of:

the client automatically obtaining a second recommendation of a third unit of electronic content which is in the first one of the plural categories

after the step of the browser outputting the second unit of electronic content to the output device, the user providing input to the client indicative of the user's desire to activate the second recommendation, and in response the client causing the browser to request the third unit of electronic content

the browser outputting the third unit of electronic content to the output device.

[illegible][illegible]

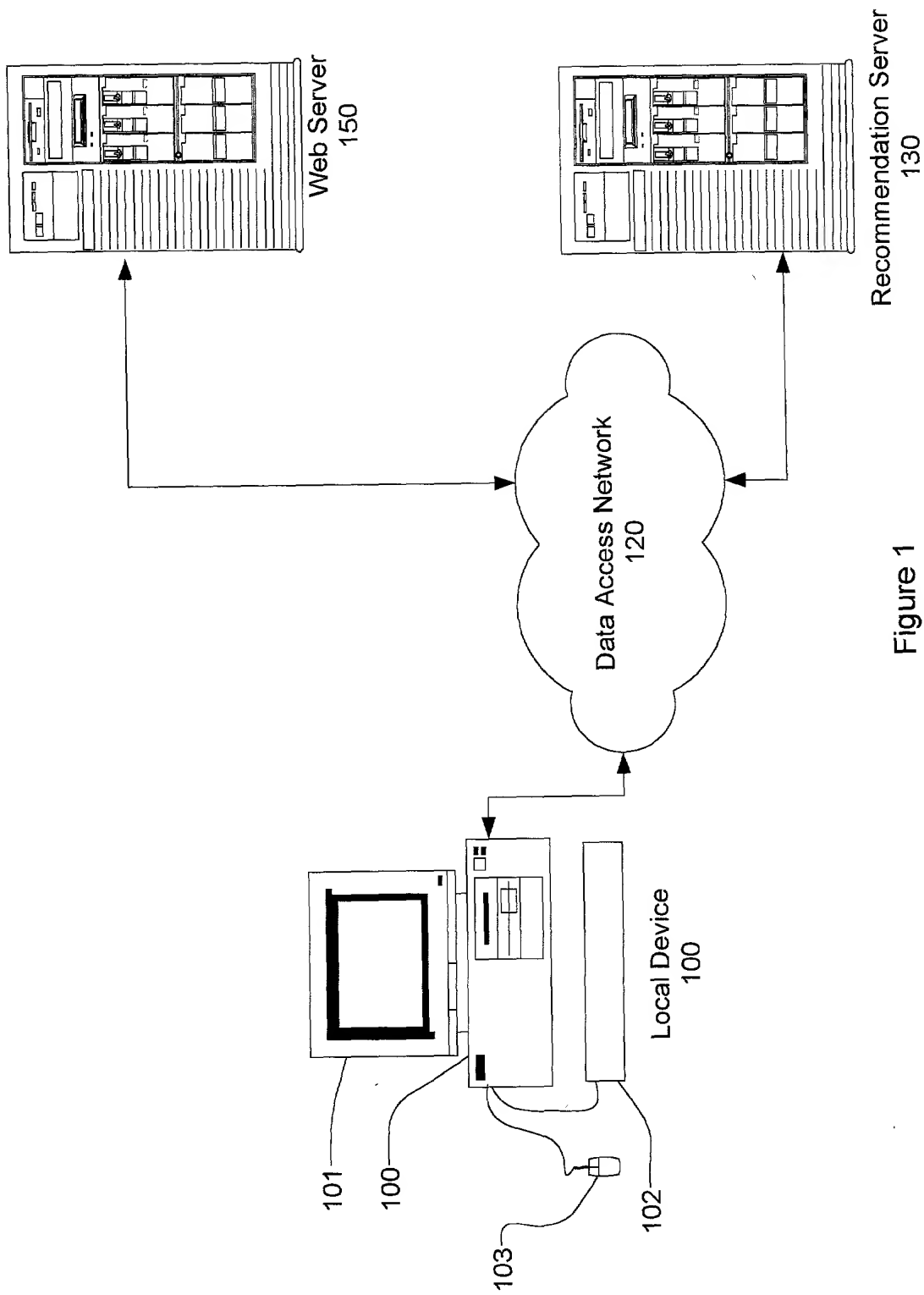


Figure 1

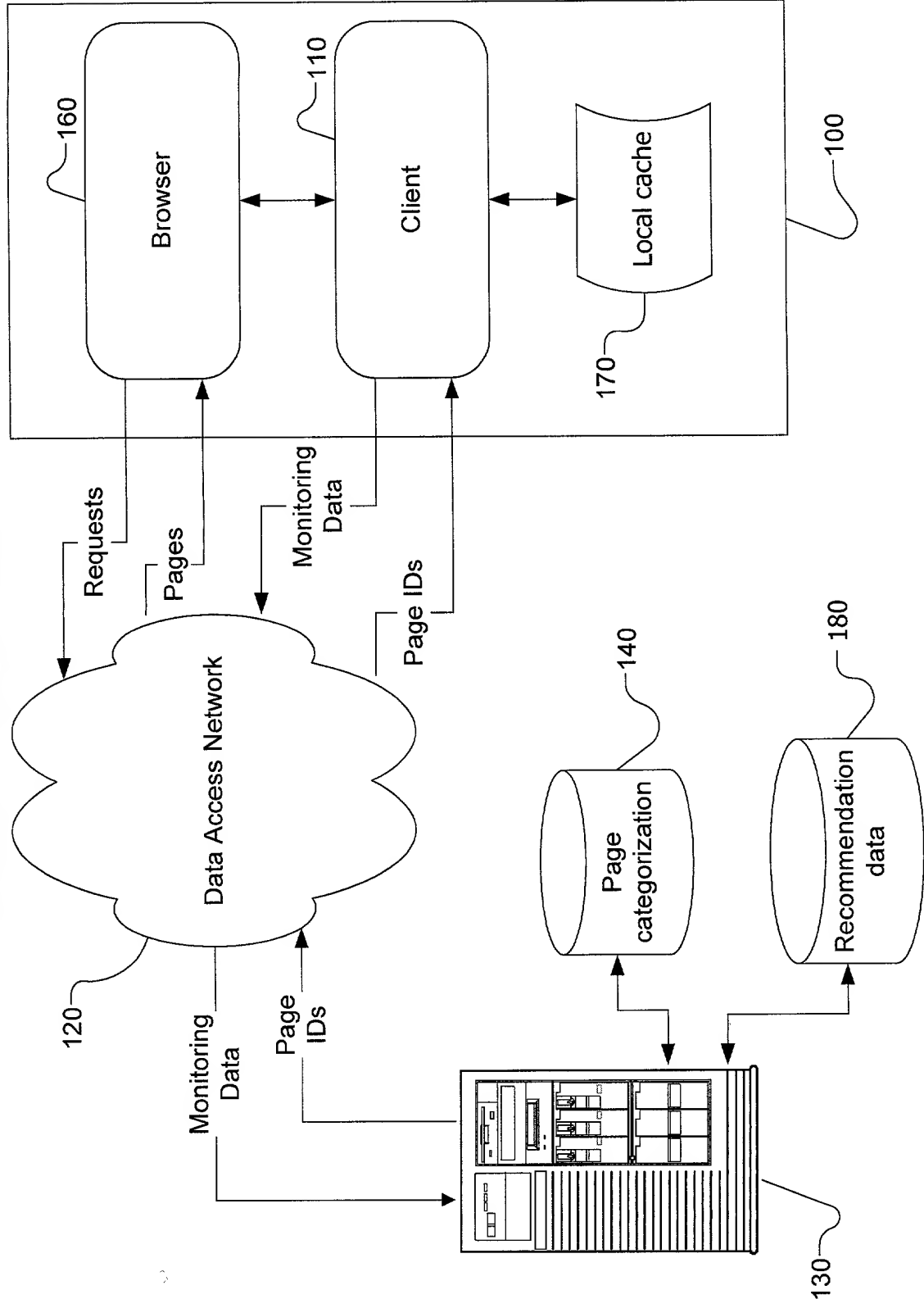
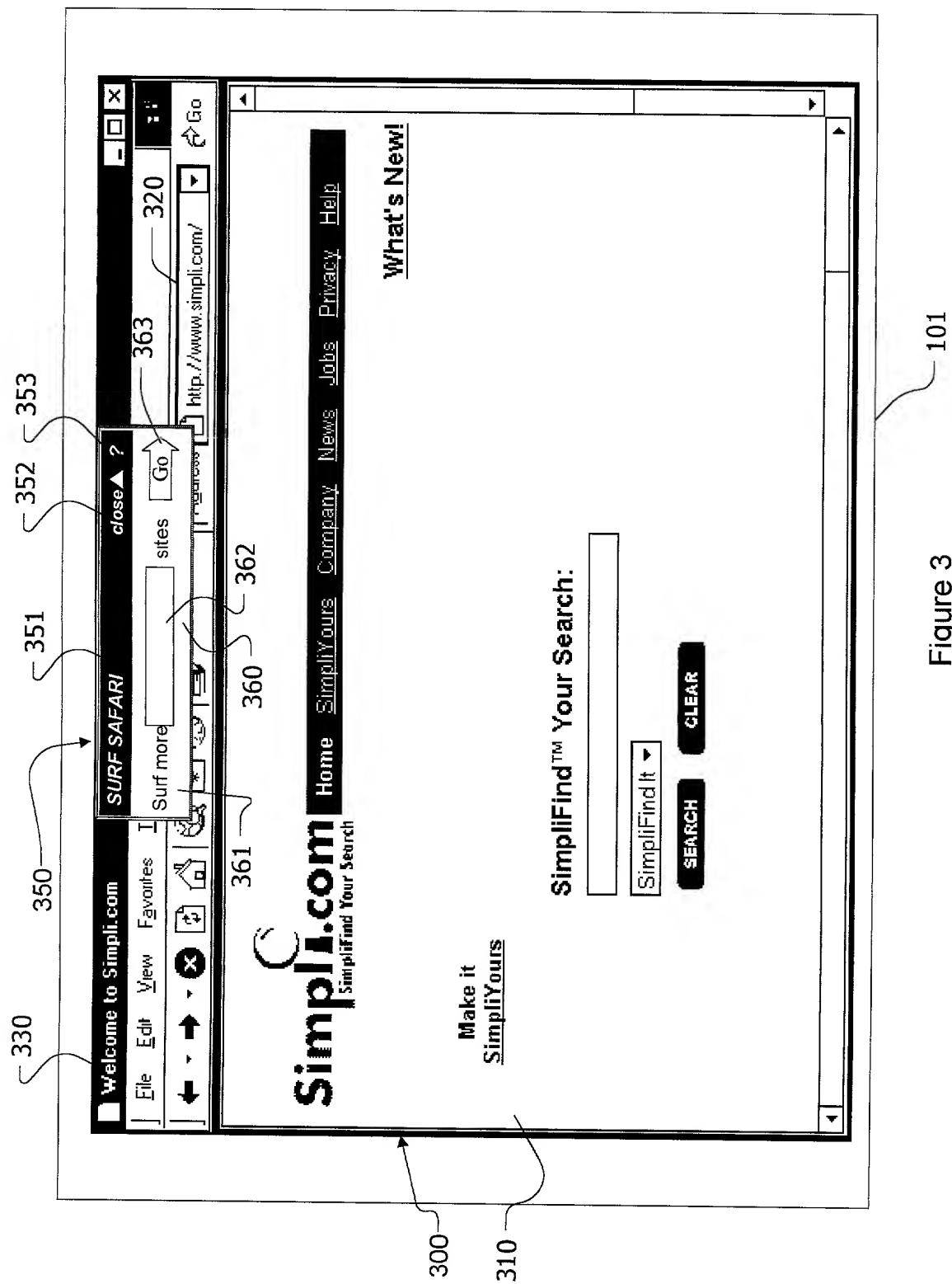


Figure 2

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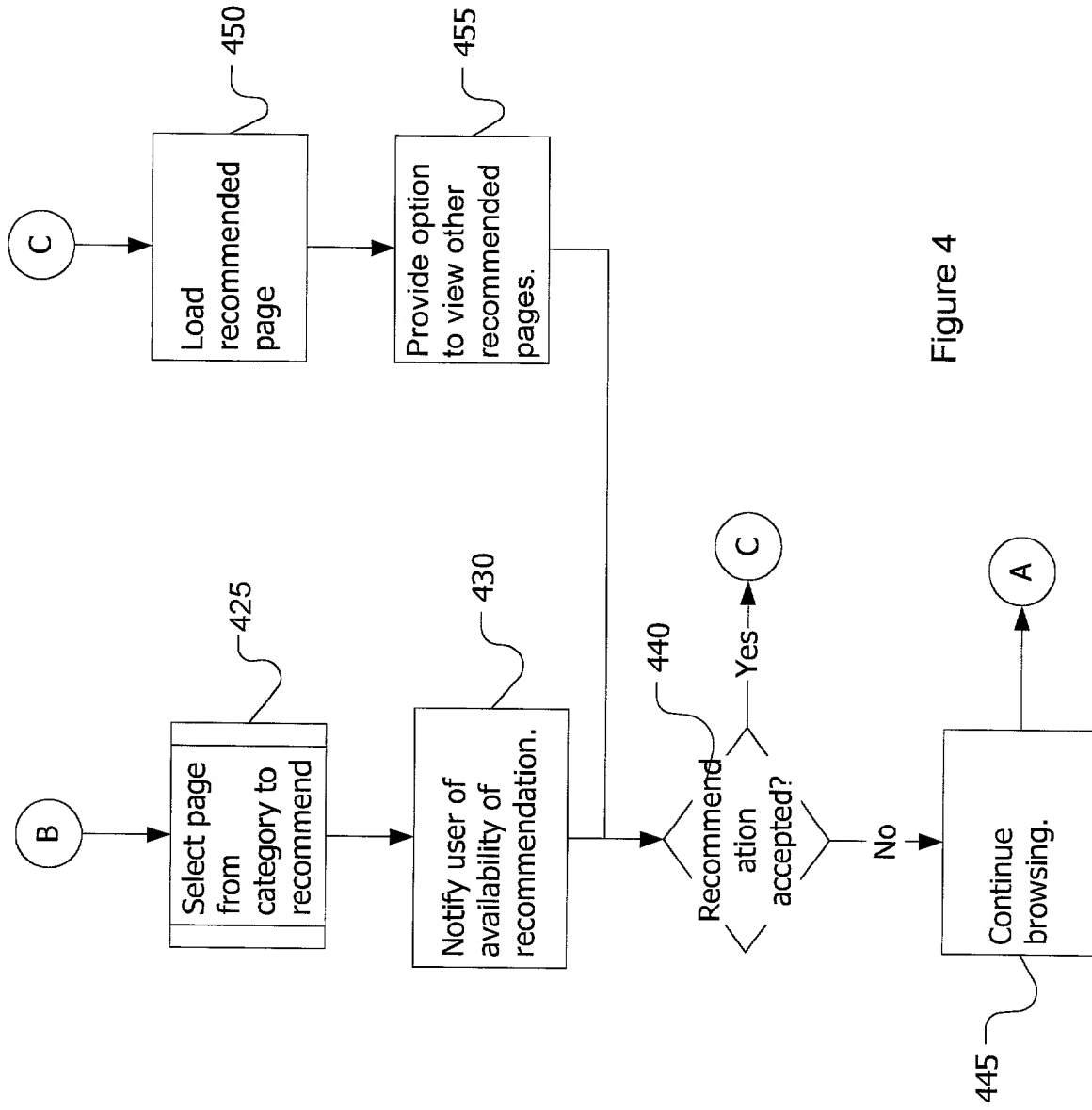
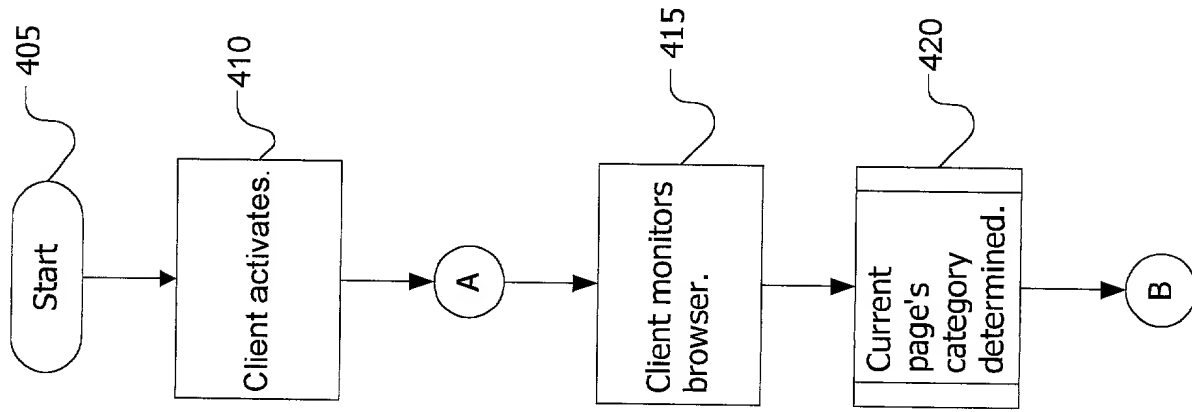


Figure 4

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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	J1-9-03755-B-US
	First Named Inventor	Goldston
	COMPLETE IF KNOWN	
	Application Number	
	Filing Date	11/20/2000
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Automatic, Profile-Free Web Page Recommendation

the specification of which (Title of the Invention)

☒ is attached hereto
OR
☐ was filed on (MM/DD/YYYY) **11/20/2000** as United States Application Number or PCT International Application Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
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			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
60/226,341	08/18/2000	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

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As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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OR

☒ Registered practitioner(s) name/registration number listed below

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Name	Registration Number	Name	Registration Number
Steven C. Sereboff	37,035		

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

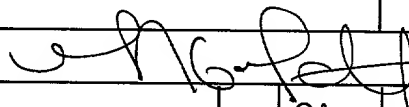
Direct all correspondence to: ☒ Customer Number or Bar Code Label ☐ Correspondence address below

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Country	USA	Telephone	(805) 418-2185	Fax	(805) 418-2185

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:

☐ A petition has been filed for this unsigned inventor

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Post Office Address			
City	Westlake Village	State	CA
		ZIP	91361
		Country	USA

☐ Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto